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February 11, 2017

Howard Backer, MD, MPH, FACEP
Director, California Emergency Medical Services Authority
10901 Gold Center Drive, Suite 400
Rancho Cordova, CA 95670

Dear Dr. Backer:

This is the 18-month report on the Santa Barbara County EMS trial on the paramedic use of the air-Q sp.

Following is a table of the results through October 2016. There was a total of 110 patients with an attempt to place the device and 109 with complete documentation. There were 3 failures to insert. We have defined a successful insertion as "no air leak" or "small air leak". There were 90 cases of successful insertion, for an overall success rate of 82.6%

The air-Q was initially made the primary airway device, to be utilized after initial cardiac arrest measures (CPR, defibrillation, vascular access, first medication(s)). In pooling our outcome data with the Ventura County EMS air-Q trial, we did not see an improvement during the initial portion of the trial. Because of this we altered our airway treatment protocol in July 2015 to make the air-Q an optional advanced airway device, to be considered if bag-mask ventilation was inadequate.

The two primary concerns with the device were an inadequate securing mechanism and regurgitated stomach contents. An improved securing device, similar to a typical endotracheal tube holder, is now available. The manufacturer is working on a more effective suction mechanism to address regurgitation.

The role of supraglottic devices in the management of cardiac arrest patients remains unclear. A recent review by Drs. Carlson and Wang was attached to the Ventura County EMS 18-month air-Q trial study report.

We plan to continue the trial to evaluate the new suction device and alternative insertion methods.

Sincerely,

A blue ink handwritten signature of Angelo Salvucci.

Angelo Salvucci, MD, FACEP, FAEMS
Medical Director

Santa Barbara County EMS
 Use of air-Q
 May 1, 2015 to October 31, 2016

Note: air-Q utilization was not initiated in Santa Barbara County until May 2015. On July 8, 2015, the air-Q was moved in priority of airway management from primary so secondary, to be used only if the BLS airway management techniques were not successful.

Total patients with an attempt to place air-Q		110	%
Ease of Use	Very Easy to Use	15	13.6%
	Easy to Use	43	39.1%
	Neither Easy nor Difficult to Use	29	26.4%
	Difficult to Use	18	16.4%
	Impossible to Use	4	3.6%
	Not Documented	1	0.9%
Did patient vomit with air-Q?	Yes	31	28.2%
	No	78	70.9%
	Not Documented	1	0.9%
If vomiting, did air-Q allow adequate suctioning? (N=31)	Yes	13	41.9%
	No	18	58.1%
	Not Documented	0	0.0%
Did the strap hold the air-Q in proper position?	Yes	36	32.7%
	No	38	34.5%
	Not used, NA	35	31.8%
	Not Documented	1	0.9%
Was seal adequate for ventilation?	Yes, no audible air leak noted	49	44.5%
	Small audible air leak noted	41	37.3%
	No, large audible air leak; unable to ventilate	19	17.3%
	NA, unable to insert	0	0.0%
	NA, "not placed due to rigor"	0	0.0%
	Not Documented	1	0.9%
Complications	NO complications	62	56.4%
	Failure to ventilate	23	20.9%
	Gastric distention	16	14.5%
	Bleeding	5	4.5%
	Unable to insert	3	2.7%
	Difficult to insert	0	0.0%
	Unable to insert "rigor"	0	0.0%
	Not Documented	1	0.9%